

## INTERNATIONAL SEARCH REPORT

International Application No PCT/FR 03/03863

A. CLASSIFICATION OF SUBJECT MAYTER IPC 7 G11C11/16 H01L29/66

According to international Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by desettention symbols) IPC 7 G11C H01L

Documentation searched other than minimum documentation to the extent that such documents are included in the traits searched

Electronic duta base consulted during the intermittional search (name of data base and, where practical, scarch terms used)

EPO-Internal, WPI Data, PAJ, IBM-TDB, COMPENDEX, INSPEC

Category *	Custom of document, with indication, where appropriate, of the relevant passages	Relevant to daim No.
X	US 5 962 905 A (KAMIGUCHI YUZO ET AL) 5 October 1999 (1999-10-05) cited in the application figure 5 column 5, line 45 - column 6, line 5	1,2,7
A	E.I. RASHBA: "Theory of electrical spin injection: tunnel contacts as a solution of the conductivity mismatch problem" PHYSICAL REVIEW B, vol. 62, no. 24, 15 December 2000 (2000-12-15), - 15 December 2000 (2000-12-15) pages 267-270, XP002253319 USA page 269, column 1, paragraph 3 - page 270, column 1, paragraph 1	3~5

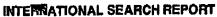
Purther documents are listed in the continuation of box C.	Patent family members are listed in annex.
"Special categories of circl ducumants:  "A" document detaining the general state of the air which is not considered to be of particular relevance.  "E" earlier document but published on or after the international filing date.  "L" document which men throw doubts on priority dialings) or which is oded to establish the publication date of enother dialion or other special reason (se specified).  "O" document referring to an oral disclosure, use, exhibition or other means.  "P" document published prior to the triemstional filing date but later than the priority date claimed.	The later document published after the International filing date or priority date and not in comflict with the application but invention  "X" document of puricular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone or cannot be considered novel or cannot be taken alone of cannot be considered novel or cannot be considered to involve an invention at a batter alone on cannot be considered to involve an inventive step when the document is combined with one of ince other stan documents of the same patent tanalty  "A" document member of the same patent tanalty
Date of the actival companion of the International search  6 July 2004	Date of malling of the international search report  19/07/2004
Name and mailing address of the ISA  European Patent Office, P.B. 5818 Patentiaan 2  NL - 2280 HV Resvilk  Tel. (+S1-70) 340-2040, Tx. 31 651 epo nt, Fac. (+31-70) 340-3018	Authorized officer Havard, C



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	US 2001/031547 A1 (OHNO HIDEO ET AL) 18 October 2001 (2001-10-18) figure 5 paragraph '0027!	1-7	
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Form PCTABA/210 (patent family ennex) (January 2004)